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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,449	03/01/2005	Adelson Dias de Souza	2171293-000001	3105

49840 7590 02/25/2009
BAKER, DONELSON, BEARMAN, CALDWELL & BERKOWITZ
Intellectual Property Department
Monarch Plaza, Suite 1600
3414 Peachtree Rd.
ATLANTA, GA 30326

EXAMINER

STALDER, MELISSA A

ART UNIT	PAPER NUMBER
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1793

MAIL DATE	DELIVERY MODE
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02/25/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/526,449	Applicant(s) DE SOUZA, ADELSON DIAS	
	Examiner MELISSA STALDER	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06-23-05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

Content of Specification

Applicant should include in the specification:

Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f).
A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims state that certain limitations "may be" included in the process, which is not a positive recitation of the limitation. For examination purposes, the claims have been interpreted as being limited to what follows the phrase "may be." However, applicant should amend this language to positively include the limitations.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Souza (WO 00/46412) in view of Iler (US 4,399,109).

Souza teaches a process for treating zinc silicate concentrates that also involves a magnesium treatment stage where the zinc concentrates are leached (abstract). Souza teaches that the carbonates present in the zinc concentrate are dissolved and then the pulp is integrated into the joint zinc extraction process of the two sources of zinc (secondary solution). The repulping stage involves repulping the zinc silicate concentrate with washing waters of the leaching residues. Souza teaches the removal of magnesium in the pre-leaching stage (pg. 3, lines 12-16). Souza also teaches filtration, which would remove the water.

Iler teaches the use of high pressure leach (autoclave) when leaching a silica compound. Souza teaches that the concentrates are obtained by flotation (pg. 7, lines 23-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the process of Souza with the autoclave of Iler as it is known in the art that the autoclave provides efficient and rapid leaching conditions for metals dissolved in acid.

Regarding claims 2 and 6, Iler teaches the use of flash pots after autoclaving (col. 4, lines 53-62).

Regarding claims 3, 7, 9, and 10, Souza teaches that a repulping and magnesium treatment stage where the water and magnesium are removed followed

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solid-liquid separation step (filtration). These steps would inherently involve thickening the pulp obtained (pg. 2, line 27-p. 3, line 11).

Regarding claims 4 and 8, Souza teaches a neutral leaching step and a treatment of the final pulp with sulphuric acid. The purpose of this stage is to remove the final zinc content, therefore, zinc sulphate in solution will be formed. (pg. 5, lines 13-29).

Regarding claim 5, Iler teaches that it is known in the art to carry out leaching autoclave at 121 degrees C and 150 psig. Iler also teaches higher autoclave temperatures that overlap with the present claim (col. 1, lines 30-46).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELISSA STALDER whose telephone number is (571)270-5832. The examiner can normally be reached on Monday-Friday, 8:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Melvin Curtis Mayes can be reached on 571-272-1234. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MS

02-13-09

/Melvin Curtis Mayes/
Supervisory Patent Examiner, Art Unit 1793